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## (54) DIELECTRIC FILTER

## (57) Abstract:

PROBLEM TO BE SOLVED: To provide a dielectric filter which reduces noise level and can also suppress the occurrence of spurious response in the vicinity of a desired frequency band.

SOLUTION: In this dielectric filter provided with a single cylindrical or columnar dielectric resonator 3 arranged in a filter case 1 covered with a lid and input and output side microstrip antennas 5 and 7 connected to the dielectric resonator, the input and output side antennas have curvature shape corresponding to the outer circumferential face of the dielectric resonator, the input and output side antennas are also arranged along the outer circumferential face to face each other with the dielectric resonator at a center, and the opposite distance between the input and output side antennas is also set to be almost equal over the outer circumferential face of the dielectric resonator. In the dielectric filter, the direct coupling of the antennas with each other is hardly caused as compared with a conventional one, so that noise can be reduced.



